



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/805,681	03/19/2004	LaShurya M. Wise	005127.00219	8555
22909	7590	11/14/2005	EXAMINER	
BANNER & WITCOFF, LTD. 1001 G STREET, N.W. WASHINGTON, DC 20001-4597			SUTTON, ANDREW W	
			ART UNIT	PAPER NUMBER
			3765	

DATE MAILED: 11/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/805,681	<b>Applicant(s)</b> WISE ET AL.	
	<b>Examiner</b> Andrew W. Sutton	<b>Art Unit</b> 3765	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 12 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-25 and 27-55 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 and 27-55 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5/12/05 & 6/23/05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Amendment***

In response to the arguments regarding the objections to the use of non-standard words, the applicant may be his/her own lexicographer as long as the definition and terms are not repugnant to the normal meanings understood in the art. Your definitions of "interweaving" use that particular word in the definition. This is like say the definition of driving is the act of driving. While it is understood that weaving or woven is the interlacing of two or more yarns at angles, primarily 90°, to each other to form interlocking yarns. The applicant's definition of "interweaving" is unclear. Further the definitions set forth in paragraph [06] in the instant specification does not clearly set forth the definitions of interweaving, intertwining, and interloping. The terms used, as well as the reference book used, may be common in British textile terms. However for someone reading a US Patent it is preferable to set forth the terminology as understood by those reading such a patent.

Applicant's arguments with respect to claims 1-55 have been considered but are moot in view of the new ground(s) of rejection.

### ***Information Disclosure Statement***

The information disclosure statement filed 6/23/05 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in

the English language. It has been placed in the application file, but the information referred to therein has not been considered.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 20-25, 27-45 and 50-55 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The applicant amended the claims to state that once the yarn is exposed to the stimulus the yarn is changed to create a more air permeable material. Figs. 2, 4 and 6 show the yarns in the unexposed state which the area between the yarns less than in the exposed state in Figs. 3, 5, and 7. If the size of the yarn is increased, and the area of the material is the same, it appears that the permeability of the yarn must decrease as this decreases the area between the yarns. The applicant states that the permeability is increased. The specification does not state how the permeability is increased. Now, in Fig. 8 shows the yarn at the unexposed state and Fig. 9 shows a yarn at the exposed state with space 53 being increased when

Art Unit: 3765

the yarn is at the exposed state. The examiner agrees that the area 53 is increased thus increasing the permeability at that point, but that does not mean that the permeability of the material is increased, as claimed. How the permeability of the material is increased since the increase in diameter of the yarn also reduces space at other locations of the fabric such as the arrow indicated below in the drawing?



Assuming the fabric area stays the same, and the yarn size increases, the means that the air permeability must decrease unless other factors such as a specifics of the structure of the fabric that are involved that are not disclosed.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-10 and 55 are rejected under 35 U.S.C. 102(b) as being anticipated by Karmin (US 5.367,710).

As to claims 1-7, Karmin teaches a woven material made of synthetic yarn including rayon. The rayon yarn has a cross section when no stimulus is present. When water (the stimulus) is exposed to rayon, the fiber swells due to its hydrophilic properties, thus changing the dimensions of the fiber.

As to claim 8, when the yarns would dry due to a physical stimulus (air), the yarn will reduce in size thus increasing the area between the yarns, which would increase the air permeability of the fabric.

As to claim 9, due to the yarn being woven, it is inherent that the yarn is undulating.

As to claim 10, a substantial portion of the garment is made of the yarns discussed.

As to claim 55, as stated above, Karmin teaches a woven material made of synthetic yarn including rayon. The rayon yarn has a cross section when no stimulus is present. When water (the stimulus) is exposed to rayon, the fiber swells due to its hydrophilic properties, thus changing the dimensions of the fiber. When the dimensions of the fibers are change, the permeability of the fabric is changed. As stated above, the fabric is woven, thus it is inherent that it is made of yarn.

Claims 14-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Driggars (US 6,253,582). O'Neill discloses (abstract) a knitted fabric with air spun polyesters as one set of yarns (front) and a cellulose yarn as the second set (back). While cotton is predominantly used cellulose yarn, this would also include rayon, which is a synthetic fiber (Col. 4 line 40-41). The fabric is used for articles of apparel.

As to claims 14-16, the rayon yarn cross-section would have a first set of dimensions when no stimulus is present. When water (stimulus) is added to a rayon fiber the cross section of the fiber swells, thus swelling the yarn. When the yarn swells due to the water, the area between the yarns would reduce due to the swelling. Since the yarns were larger in cross section, the air permeability of the fabric would be reduced.

Claims 11-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Hamilton (US 5,645,924). Hamilton discloses yarn (second yarn) comprising spandex and polymeric fiber for use in making stretchable woven fabric (Col. 3 Lines 44-47). The yarn would not absorb water, which would mean that the size cross-section of the yarn would not change due to the stimulus. Hamilton discloses (Col. 4 Lines 51-58) that the elastic yarn could be used with a yarn made of rayon. The rayon yarn (first yarn) would absorb water and swell due to the moisture absorption. This would decrease the area between the yarns and reduce the air permeability. The two yarns can be used in the weft/ warp directions or in the warp/weft directions. Due to the yarns being woven, they would have an undulating configuration.

Claims 17-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Chesebro (US 5,095,548). Chesebro illustrates (figure 4) a knitted sock with a hydrophilic yarn Y-2 and a hydrophobic yarn Y-1. Rayon is a fiber that is classified as a cellulose yarn, hydrophilic, and a synthetic. The fabric would have a first texture before a stimulus is exposed to it. When a stimulus (water) is exposed to it, the hydrophilic yarn would absorb water, thus increasing in size. This would change the texture of the

fabric making the hand feel rougher, due to the increase in the yarn diameter. This would make the fabric feel as if it has nodes extending from the fabric.

Claims 46-49 are rejected under 35 U.S.C. 102(b) as being anticipated by Driggars (US 6,253,582). Driggars discloses (abstract) a double-knit fabric with an air jet spun polyester on front side and the backside made of cellulosic yarns. Rayon is a fiber that is classified as a cellulose yarn, hydrophilic, and a synthetic. The fabric would have a first texture before a stimulus is exposed to it. When a stimulus (water) is exposed to it, the hydrophilic yarn (cotton) would absorb water, thus increasing in size. This would change the texture of the fabric making the hand feel rougher, due to the increase in the yarn diameter. This would make the fabric feel as if it has nodes extending from the fabric. This would make the fabric feel as if it has nodes extending from the fabric. The hydrophilic yarns would not absorb any water thus the increased size of the hydrophilic yarn would and the hydrophobic yarn staying the same dimension would cause nodes on the surface of the fabric giving it a rough texture.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the



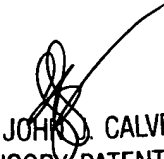
shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew W. Sutton whose telephone number is (571) 272-6093. The examiner can normally be reached on Monday - Friday 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John J. Calvert can be reached on (571) 272-4983. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AWS  
31 October 2005

  
JOHN J. CALVERT  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700